

ZERO BEAT

HAMPDEN COUNTY RADIO ASSOCIATION, INC.

Springfield, Mass.

ARRL Affiliated, 32nd Year

September, 1980

THE HAMPDEN COUNTY RADIO ASS'N

Springfield, Massachusetts

September Meeting

Friday, Sept. 12, 1980

Feeding Hills Congregational Church

Intersection of Routes 57 & 187

Feeding Hills, Mass.

7:30 P.M.

Your board of directors has planned a year of exciting and interesting programs for the coming year featuring both speakers and subjects. Notable persons who will be invited to speak are Dick Stevens, Wayne Green, and Tom McMullen. Subjects to be included in this year's program will be the use of the oscilloscope and home construction practices, both electrical and mechanical. A complete schedule will appear in a subsequent issue.

The first speaker of the year is really two speakers. Bill Hall, W1JP, and Norm Peacor, K1IJU, who will entertain us with Tales of the South Caribbean. Bill and Norm, together with their lovely wives, Heather, W1ABF, and Jean, K1IJV, have been vacationing in tropical climes for the last two years and have combined their vacations with DXing. It should be a very interesting evening hearing what a pile-up is like from someone who has been on the other end.

NOTICE

Dues should be sent to your new treasurer:

GREG STODDARD, N1AEH
15 Chestnut Circle
West Suffield, Conn. 06093

The dues schedule has been changed this year - would you believe down.

First family member \$ 7.00/yr.
All other family members - each \$ 5.00/yr.

Please enclose an SASE if you want a membership card returned by mail.

WE DID IT! 142,566 POINTS!

THIRD PLACE IN THE COUNTRY!

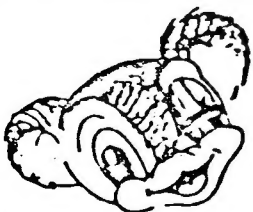
Every January the HCRA goes after the VHF Sweepstakes. We've been participating for the past 33 years. Well, we set a new club record in '79. W1RWU, our own Frank Potts, is the number one multi-op station in the country!!!! With help from K1TOL, K1APR, W1ECR, W1LPJ, W1UQC, W1AUV, and W1CAC they scored 70,400 points!

AC1T was top club scorer with 8,404 points and all his neighbors complaining about TVI on six meters. A partial list of club members who participated:

N1PF	K1GXU	W1NLE	K1BE
W1VCU	W1UKR	K1BNN	N1CM
W1KK	K1YOU	W1ZKT	W1APD
W1YYK	W1DNB	W1UWX	W1UPH
W1UWX	W1CJK	W1FIP	W1DTZ
W1ETS	W1KUL	W1AUV	K1AVM
		W1BPJ	

(Hope we didn't miss anyone.)

January 1981 is fast approaching. Let's go for first place, we can do it. Everyone in the club will have to get on the air. Logs will be printed in Zero Beat. Loaner rigs are also available. So start planning to win in '81!



FRANK H KOZAK
LORRAINE KOZAK

"Quick As A Wink"

PRINTING & SALES CO
TEL (413) 736-8184

454 MAIN STREET
WEST SPRINGFIELD, MA. 01089

FREE PARKING
AT OUR DOOR

ZERO BEAT, September, 1980

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PRESIDENT'S CORNER

On behalf of your Board of Directors I would like to welcome you to a new year of inovating and stimulating programs and sevicees from your club, the Hampden County Radio Association.

The Board and myself have been working throughout the summer to develop interesting programs for the coming year. In addition we are investigating additional club activities and sevicees for the enjoyment of the membership.

In summary, the tone for the year is best expressed in the words of F. Scott Fitzgerald, "Many men look at things that are and say; why? I dream things that never were and say; why not?"

See you at the first meeting
September 12, 1980.

73's

Ron, WB1ETS

Your Editor Speaks.....

Throughout the summer your editor has been pondering the subject matter for the first awe inspiring editorial of the season with the thought in mind of producing a literary masterpiece - something that would inspire each of us to greater goals in the coming year. All thoughts of this, however, have been pushed aside as this first editorial is committed to the written word. In fact, last evening the title of this editorial was to be: An Open Letter to Nitwits. The coming of a new day has tempered my pen and we shall address this editorial to all those amateur radio operators who have or will tune their rigs and antenna systems on the air.

During the net that was established to provide assistance and information to areas affected by the hurricane as it moved through the Carribean, the Gulf of Mexico and ultimately into texas a continuous level of QRM was generated by operators tuning transmitters and antenna systems. Many of these stations were much stronger than stations in the affected areas, many of whom were operating on batteries with limited life. QRM can be avoided if everyone cooperates.

First of all, adhere to that most basic rule of amateur radio and that is LISTEN before you transmit. If this had been done, more

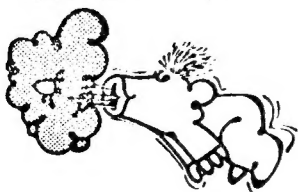
operators would have heard the Net Control Station pleading with people to put down their mikes. Further, receivers and antenna systems can be tuned for peak reception without turning your transmitter on. Try it and you might be surprised to find how closely you are to being properly loaded when you do turn your transmitter on. Second, tune your transmitter into a dummy load. If you don't have one, go to the hardware store and buy a porcelain light socket and a 150 watt bulb. These two items together with a piece of coax will provide a reasonable load and keep you off the air.

Third, tune your antenna system using low power and MOVE OFF FREQUENCY. Again, you may be surprised to learn that your SWR bridge will work nicely with only a few watts of power and that your antenna system, once resonated, will be resonant at all power levels. Moving off frequency will not destroy the integrity of your transmitter and antenna system tuning if you move 10 or 15 Mhz from the frequency on which you wish to operate. During an emergency, leave your mike on the desk. If you hear QRM, don't jump in and try to quiet the frequency because all you have done is added to the noise.

Amateur radio can be effective only if we have training and discipline and that includes self-training and, more importantly, self-discipline.

73's

Paul, W1ZKT



RADIO ASTRONOMY

Imagine listening to radio signals that began when your ancestors walked the earth in animal skins! A Bell Lab's genius named Jansky started the science called radio astronomy. When Bell dropped it, a radio ham in Illinois, Grote Reber, continued mapping radio sources in the sky. You can become part of this exciting new hobby.

If you're already set up for OSCAR work, that's all you need. Jupiter is one of the most interesting radio sources nearby. The most intense radiation is in the 18-30 Mhz region, with distinctive chirps and staccato noises. Solar flares on the sun's surface and extended sources like Sagittarius A can easily be monitored.

Radio astronomy requires an antenna with at least 10db of gain, a good receiver, and some type of measuring instrument. While everyone does listen on speakers, it's better to hook up a voltmeter and measure the rise as a radio source crosses your meridian.

It's neither hard, nor too complicated, and with the books at the end of this article, any ham can do it. Some of the things you'll learn about that may help you in amateur radio are antenna design, celestial navigation, receiver design, radio sources, and radio interferometers.

If you decide to pursue this, keep in mind that you might have a radio source named after you. Radio maps of the sky do not exist for every frequency, but it takes years to do one. Whether you go after it casually or seriously, these will help:

—Radio Astronomy for the Amateur
by Dave Heiserman
Tab Books \$8.95

—Scientific American, Sept 1960
Article on detecting solar flares

—Any good astronomy textbook.

If you think this would be a good topic for a club meeting, let your officers know, I'll be glad to do a basic talk.

73, K1BE

BEATING MURPHY AT HIS OWN GAME

Now that days are getting shorter and evenings are getting cooler, you're probably thinking of the upcoming winter and amateur radio. If you're not, maybe you should stop and consider some timely items to "tune up" your station for the winter season.

Since the present weather is so conducive to outside activities, your antenna system should now be considered for a good going over. Each amateur's antenna farm is different and it will be up to the individual to decide what should be done. Needless to say, the more thorough you are in your "preventative maintenance", the higher the probability of your antenna remaining intact through the winter.

Don't forget to check the feedline, especially where it passes through walls and floors. A good overall check would be to load up your rig and check SWR and possible TVI. It's less hectic to track down a TVI problem when network reruns are on rather than during the fourth quarter of the Superbowl.

As long as we're working on antennas, let's not forget the vehicular antenna system.

After the antennas are checked, hack related items can be checked anytime since you don't have to worry about outside weather conditions (although I've been in some pretty cold cellar shack locations). Again how and what you check depends on how much inconvenience you're willing to put up with when Mr. Murphy decides to strike. A little judicious use of contact cleaner and a few new light bulbs and tightening up of loose knobs will go a long way. As long as you have the rig apart, now is a good opportunity to check final bias, neutralization, carrier balance and items not checked in day to day operation. Don't forget to check on your spare parts such as extra fuses and a spare pair of finals. To avoid getting a "pink slip"

check your calibrator frequency with WWV (also synchronize your station clock at the same time).

If you wish, you don't have to do any of the above. You maybe lucky enough to have everything work after sitting idle through the summer. This article is written only to incite a little thinking on your part. You'll have decided what, if anything, to do to your station to provide for a more enjoyable and safer operating season.

Gent, WAlCQF

HAMS, BE READY!

Washington (UPI) - A "super" magnetic storm with potential to cause unprecedented electrical blackouts and power outages should hit earth in the next few years, government scientist said Wednesday 14 May 1980.

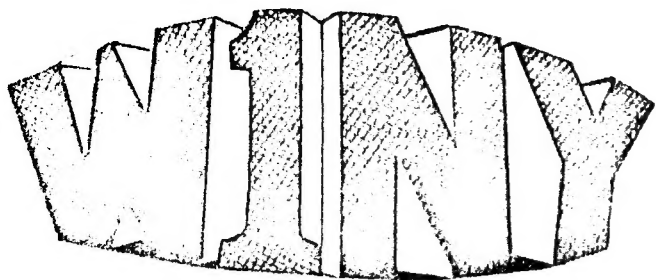
Howard Sargent of the Space Environmental Services Center said conditions are ripe for such a storm and the world's power transmission systems appear to be vulnerable.

Sargent explained that magnetic storms, which generally arrive after peaks in the 11 year sunspot cycle, set up currents in power lines that cause overloads and eventually cut off power. The sunspot cycle has just passed its peak, Sargent noted.

The last time Earth experienced a magnetic storm was in 1972. Sargent said the forthcoming one should be more devastating in terms of electrical power outages.

During unusually strong magnetic storms, the bright lights of the aurora, which normally appear in the sky in the polar region, move down into temperate and even tropical climates. During the 1972 magnetic storm, the aurora was spotted as far south as Kentucky.

(Worldradio News)



REPORT—FIELD DAY 1980!

Shades of Middlefield! Field day in West Granville was great fun. Many old timers stopped by to reminisce. Camp Barber was spacious with sleeping, swimming, hot showers, fishing, hiking, and picnic tables available. The band captains successfully set up and W1NY's signals went out on time. Ten meters with WA1ZKT operated out of a tent into a dipole fed with 300 ohm twinlead. AC1T and W1KK were running 80 meters in the luxurious Agawam CD van. 20 meters' monobander was almost ruined going up. K1BXE put a novice station on the air out of his VW camper. WB1EMN and club Prez, WB1ETS captained the well-organized 15 meter station, promising bigger and better next year. 40 meters used a vertical antenna next to the pond, and WB1BZW/KA1CRG did an FB job. Kurt did yeoman duty keeping myriad projects going, including the diesel generator.

The FD site had about 75 people stop by and about 40 operators. Band conditions were mediocre to good. Despite intermittent rain, spirits remained high. Many thanks to Bob Orr, WB1BPL for finding and suggesting the location.

Next year is already being planned. Everyone would like to return to Camp Barber. The success we've had with our game plan of dividing up the work via band captains will continue. They'll have the responsibility of getting the antenna, station, power, and operators for the band they pick. The FD chairman will supply logs, dupe sheets, and things the entire FD needs, like road signs and first aid kits. 1981 band captains will have to turn in complete logs and dupe sheets to the chairman. Volunteers for some bands have already spoken up!

Suggestions for 1981 heard so far are: Have the church cook all the meals, leaving us more time to operate. Make more use of the facilities, like the bunk beds and showers, which will allow people to concentrate on antennas, instead of tents. The top cw operators were conspicuous by their absence, so next year we'll make every

effort to have more of them there. Finally, a prohibition against hard liquor was made. Field Day 1981 promises to be great fun. Any other ideas? Let us hear from you!

FOR SALE: Swan 260 5 band SSB Xcvr, New in 1969, just realigned, new finals, seldom used as I am a cw op, \$280.00
Percy Noble, W1BVR Bailey Rd,
Lanesboro, Mass 01237

BARTER—I'll work for that rig! Why trade it in when they aren't giving enough for it? If you need some work around the house, I'm willing to do it. I can do Plumbing, electrical, painting, roofing, etc. Let me know what you need done and what radios you want to let go. Jeff 569-6739 K1BE

FOR SALE

Hammarlund 4K1B Keyer
Adjustable speed, ratio, weight, and sidetone volume.

Functions: Automatic, bug & hold.
Complete with manuel \$ 23

Waters (B&W) 359 Compreamp solid state speech preamplifier/limiter.

Complete with manuel \$ 23

Call Steve, WA1EYF after 5:00 pm
at 596 8216

FOR SALE

- 1) Kenwood TS520S, CW filter, spare finals.
- 2) Wilson 1402SM Handi Talkie, case, duck, external microphone, drop in charger, touchtone pad, monolithic filter.
- 3) Handbook transmatch with integral SWR bridge.
- 4) Accu-keyer with built-in paddle.
- 5) 12 volt 7.5 amp regulated D.C. supply with built in metering.

WA1CQF, Gent Lam
413 737 9426

BREVIATIONS FOR CW WORK

The purpose of using abbreviations is to reduce the amount of time required to transmit intelligence. However, many cw amateur abbreviations have been carried over into voice work and have become part of the "lingo." In general, it is considered good practice to abbreviate on cw, poor practice to use cw abbreviations on phone. The list below covers only those abbreviations most used.

AA All after
AB All before
ABT About
ADR Address
AGN Again
BCI Broadcast Interference
BK Break; break me; break in
BN All between; been
BUG Semi-automatic key
B4 Before
C Yes
CFM Confirm; I confirm
CK Check
CL I am closing my station; call
CLD-CLG Called; calling
CQ Calling any station
CUL See you later
CW Continuous wave (i.e., radiotelegraph)
DLDD-DLVD Delivered
DX Distance
FB Fine business; excellent
FREQ-FQY Frequency
GA Go ahead (or resume sending)
GB Good-bye
GBA Give better address
GE Good evening
GG Going

GM Good morning
GN Good night
GND Ground
HI The telegraphic laugh; high
HR Here; hear
HV Have
HW How
LID A poor operator
MSG Message; prefix to radiogram
N No
NCS Net Control Station
ND Nothing doing
NIL Nothing; I have nothing for you
NR Number
NW Now; I resume transmission
OB Old Boy
OM Old man
OP-OPR Operator
OT Old timer; old top
PBL Preamble
PSE-PLS Please
R Received solid
RCVR Receiver
RECD-RCVD Received
RFI Radio frequency interference
RPT Repeat; I repeat
RTTY Radioteletype
SASE Self-addressed, stamped envelope
SIG Signature; signal
SKED Schedule
SRI Sorry
SVC Service; prefix to service message
SWL Short wave listener
TFC Traffic
TMW Tomorrow
TNX-TKS Thanks
TT That
TU Thank You

TVI Television interference
UR-URS Your; you're; yours
VFO Variable frequency oscillator
VY Very
WA Word after
WB Word before
WRD Word; words
WKD-WKG Worked; working
WL Well; will
WPM Words per minute
WX Weather
XMTR Transmitter
XTAL Crystal
XYL(YF) Wife
YL Young Lady
Z Universal Coordinated Time
(formerly Greenwich Mean Time)
ZB Zero beat
73 Best regards
88 Love and kisses

ARRL TERMS

AREC Amateur Radio Emergency Corps
ARPSA Amateur Radio Public Service Corps
BPL Brass Pounders League
CAC Contest Advisory Committee
CD Communications Department
CP Code Proficiency
DXAC DX Advisory Committee
DXCC DX Century Club
SBDXCC Five-Band DXCC
EC Emergency Coordinator
ECAC Emergency Communications
Advisory Committee
FD Field Day
IARU International Amateur Radio Union
IW Intruder Watch
LO League Official
NTS National Traffic System
OBS Official Bulletin System
OO Official Observer
OPS Official Phone Station
ORS Official Relay Station
OVS Official VHF Station
PAM Phone Activities Manager
PRA Public Relations Assistant
PSHR Public Service Honor Roll
RCC Rag Chewers' Club
RM Route Manager
SCM Section Communications Manager
SEC Section Emergency Coordinator
SS Sweepstakes
TCC Transcontinental Corps
VRAC VHF Repeater Advisory Committee
WAC Worked All Continents
5BWAC Five-Band WAC
6BWAC Six-Band WAC

PREFIXES

Prefixes assigned to different countries help in identifying the nationality of all calls heard on the air. Nations with amateur stations select some letter or letters from their assignment to use as a prefix to amateur calls.

The ARRL Handbook and Logbook contain a listing of the alphabetical blocks assigned by the



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ACIT



ZERO BEAT, September, 1980

FIRST CLASS MAIL